REMARKS

The Office Action mailed July 29, 2008, has been carefully reviewed. By this Amendment, Applicants have amended claims 15, 27, 30 and 36. Claims 15, 19-28, 30 and 32-36 are pending in the application. Claims 15, 27, 28 and 30 are independent. Claims 24, 25 and 28 have been withdrawn.

The Examiner rejected claim 36 under 35 U.S.C. 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. With the amendments set forth herein, claim 36 is in conformity with 35 U.S.C. 112, second paragraph.

The Examiner rejected claims 15, 19, 21-23, 26, 27, 30 and 32-36 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,234,423 to Hirahara et al. ("Hirahara") in view of U.S. Patent No. 5,224,670 to Padden. Also under 35 U.S.C. 103(a), the Examiner rejected claim 20 as being unpatentable over Hirahara and Padden and further in view of U.S. Patent No. 3,102,559 to Koppelman et al.

As set forth with clarifying amendments herein, independent claims 15, 27 and 30 are directed to a fitting for connecting a movable part of an aircraft with a structural component of the aircraft. As such, the fitting includes a movable

part mounting structure for connection to the movable part and a structural component connecting part for connection to the structural component.

To connect the structural component connecting part *of the fitting* to the structural component of the aircraft, the structural component connecting part includes at least one arm that extends outwardly in a direction away from the moving part mounting structure. The arm has an aperture therethrough, an inner diameter of which defines *a bearing surface* 7. (As would be understood by persons of skill in the art, the component 7 shown in Figures 4 and 5 is technically a bearing *surface* which is configured to receive at least one bearing. The bearing itself may be a sphere or roller such as a ball bearing, or a cylinder such as a sleeve bearing. These types of bearings are described, for example, at wikipedia.org which was cited by the Examiner.)

Again, the structural connecting part as claimed is part of the fitting. The structural connecting part is also stated in the claims as including the arm with the aperture therein that defines a bearing surface. Finally, the claims provide that *the fitting* is made of a synthetic composite material according to a resin transfer molding method. Therefore, since "the fitting" is made of a synthetic composite material according to a resin

transfer molding method, it follows by necessity that the structural component connecting part with its arm, aperture and bearing surface is made of a synthetic composite material according to a resin transfer molding method. This is not shown by the prior art.

In the Examiner's outline of his position in view of Hirahara, the Examiner stated that the fitting corresponds with the components identified by reference numerals 13a and 13b which make up the spar 13. The spar 13 does not, therefore, include the "bulged-out portion" or arm (where number 13b is pointed to in Figure 1 of Hirahara). This bulged-out portion or arm has been referred to by the Applicants in previous Amendments as a "hinge" and will therefore be referred to as a hinge hereinafter for consistency. A copy of Figures 1 and 2 of Hirahara is attached in which the hinges are highlighted.

That the spar or "fitting", as stated by the Examiner, includes only the components 13a and 13b, and not the hinges, is in agreement with Figures 9 and 14 of Hirahara, from which it is clear that the spar 13 itself includes only the flanges 13a and the web 13b and *does not include the hinges*. This was also substantiated by Mr. Kaufmann in his declaration filed on August 2, 2007 ("Mr.

Kaufmann's 2007 Declaration"), to which the Examiner is invited to refer.

Since the spar or fitting does not include the hinges, but only components 13a and 13b, then Hirahara does not disclose *a fitting* having at least one outwardly extending arm with an aperture and bearing surface as set forth in each of claims 15, 27 and 30.

In stating that Hirahara does not disclose a "bearing", the Examiner takes official notice that bearings are a well known means to permit constrained relative motion between a structural and a movable part. However, as originally used in the specification in connection with the component 7 shown in Figures 4 and 5 of the present application, the Applicants in referring to a "bearing" were more accurately identifying a *bearing surface* that is configured to receive a bearing, as would be understood by persons of skill in the art. And Hirahara does show a bearing *surface* in the form of the hinges. In doing so, however, Hirahara does not disclose or suggest that the hinges are part of the fitting. On the contrary, it has already been established that the hinges are not part of the fitting or spar 13. Furthermore, Hirahara does not disclose or even contemplate that the hinges are made of the same composite material as the spar.

On the contrary, Hirahara is directed to a method of making a composite material airfoil structure which includes the U-shaped spar 13 bonded to the upper and lower skins 11 and 12 (column 4, lines 50-60). In forming the spar, a laminate of composite prepreg is formed into the illustrated *U-shaped cross sectional shape* and molded under heat (see column 5, lines 33-36; column 6, lines 6-11). Since the U-shaped spar is produced by laminating composite prepreg, it is clear that the hinges are not made by the same process. Specifically, it would not be possible to integrate the hinges with the flanges 13a and the web 13b by a laminating process. Such a complex three-dimensional part made of composite material can only be produced by a resin transfer molding (RTM) method such as that described by the present invention.

Further, the hinges of Hirahara which are used to connect the spar to the aircraft structure *are not made, nor disclosed as being made, of a composite material at all.* This fact was discussed in detail in Mr. Kaufmann's 2007 Declaration (see particularly, paragraphs 8-12). And there is nothing in Hirahara to suggest that the hinges, which are not part of Hirahara's invention and certainly are not identified as being a structural component of the spar, are anything other than conventional metal connectors.

Similarly, Padden shows mounting fittings 4, 5, 6 and 25, 26 and 27 which are made of metal, and preferably made of aluminum (see column 4, lines 9-11). A copy of Figures 1 and 2 of Padden in which the "fittings" have been highlighted is attached for clarification as to what constitutes the fittings. As can be clearly seen in Figure 2, the fittings, which are made of metal, are connected to the movable part or spoiler with rivets or the like. Thus, there is nothing to suggest a fitting made of composite material by a resin transfer molding (RTM) method as claimed by the present invention.

More generally, Padden does not address the objects of the present patent application which are to provide a device for connecting movable parts with structural components of airplanes that, by using a fitting made of composite material by a resin transfer molding (RTM) method, reduces or avoids the drawbacks caused by the thermal expansion of known metal devices and which, in addition, offers a low weight, a high loading capacity, and a simplified producibility. The differences between the present invention and that of Padden were fully set forth in the Declaration of Mr. Wolfgang Billinger filed on July 9, 2004, to which the Examiner's attention is invited.

In sum, neither Hirahara nor Padden disclose a fitting including an arm and bearing surface, all made of composite material by a resin transfer molding (RTM) method, as set forth in claims 15, 27 and 30. Favorable reconsideration and allowance of the pending claims is therefore requested.

Finally, Applicants note that all of the sister applications corresponding to the present application and filed in each of Europe, Austria and Canada have been or are soon to be allowed without relevant restrictions to the claims.

With this amendment and the foregoing remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any questions or comments, the Examiner is cordially invited to telephone the undersigned attorney so that the present application can receive an early Notice of Allowance.

Respectfully submitted,
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